A NEW TUMBLE WEED FROM SOUTH AFRICA.

By A. A. Obermeijer, M.Sc.

Anthericum erraticum, Obermeijer spec. nov.

Rhizoma repens compacta. *Folia* multa, cylindrica, ad 40 cm. longa et 3 mm. in diametro, carnosa. *Inflorescentia* paniculata sed ad basin umbellata, ad 60 cm. alta ; pedunculus 18—26 cm. longus, ad apicem clavatus ; rami secundi 3 (rarius 4) ad apicem pedunculus insertis ; rami floriferi alternati, ad juventute erecti, ultimo patentes et recurvati ; pedicelli 6 mm. longi, solitarii, non-articulati. *Bracteae* membranaceae, deciduae, brunneo-costatae. *Tepala* alba, recurvata, brunneo-costata. *Stamina* filamenta ad basin connata, patenti, scabri, gibbosi ; *anthera* introrsa. *Ovarium* loculi circiter 8—ovulati ; stylus glaber ; stigma penicillatum.

Rhizome creeping, compact, perennial. *Roots* many, somewhat fleshy. *Leaves* many, deciduous, terete, up to 40 cm. long, 3 mm. in diam., minutely longitudinally grooved and with minute immersed glands,

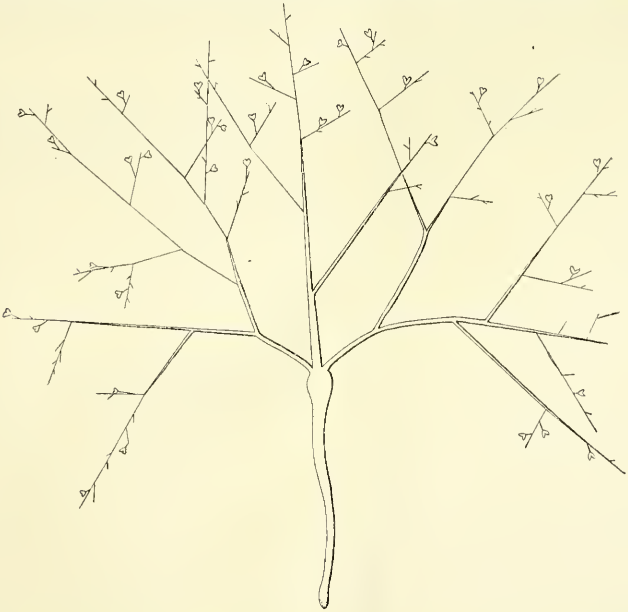

Fig. 1. *Anthericum erraticum*, Obermeijer. Dry inflorescence, semi-diagrammatic.

sheathed at the base. *Inflorescence* a panicle but pseudo-umbellate at the base,* up to 60 cm. long and when dry, about as broad, at first erect, herbaceous, afterwards spreading, ligneous, becoming detached from the rhizome when the seeds have ripened and the capsules are ready to burst. *Peduncle* 18—26 cm. long, swollen and clavate at the apex. *Sidebranches* branching alternately and copiously. *Pedicels* ± 6 mm. long, solitary, not articulate. *Bracts* broadly ovate, membranous, deciduous, with a brown keel. *Tepals* white with a stout brown keel and a yellow spot near the base, connate at the very base only, spreading, recurved. *Stamens* didymous, connate into a tube at the base and there white and somewhat scabrid, upper half of the filaments yellow, patent, densely and retrorsely scabrous, with a ventral gibbosity near the middle of the filament. *Anthers* introrse, dorsifixed. *Ovary* with 6—10 ovules in each loculus, glabrous, hidden by the staminal tube; style white, glabrous, ultimately overtopping the stamens; stigma minute, penicillate. *Capsule* 2 mm. long, glabrous. Base of the perianth persistent. *Seeds* dark-brown, 3 angled (probably somewhat sticky).

Distribution : A common psammophyte found in the grassveld of the Western Transvaal, Free State, Griqualand West and Bechuanaland. It flowers in late summer (i.e. about January) and the inflorescences start rolling about in April.

Transvaal :—Wolmarans District; Maquassi *leg.* van Niekerk, T.M. 35736, *type*! (Transvaal Museum). Waterberg District; Radium near Warmbaths, *leg.* Obermeijer T.M. 35737 (Transvaal Museum),† Mosdene near Naboomspruit, *leg.* Galpin M. 353 (National Herbarium); Naboomspruit, *leg.* Murray 685 (National Herbarium).

Orange Free State :—Boshof District, between Sandfontein and Boshof, *leg.* Schweickerdt 115 (National Herbarium) "common in grassveld; the inflorescences after maturity are carried away by the wind, become heaped up against fences and break these down; called 'waaibos'."

Cape Province :—Barkly West, border in loose, white sand in camp below station *leg.* C. A. Smith, 2332 (National Herbarium) "fairly common perennial" Kimberley District, Doornfontein, *leg.* Adams (McGregor Museum); Kuruman District, Kuruman, *leg.* Pole Evans

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* The inflorescence is usually trichotomous at the base. From the position of the bracts, however, it can be ascertained that one of these three branches must be regarded as a continuation of the main stem while one of the two true side branches is always situated slightly above the other.

† When visiting Radium in August 1935 I noticed the dried inflorescences to be very common in the fences and bushes and was told that the plants had flowered in January when the veld had been full of them. However, when I visited the locality again six months later, only a few plants could be located. The late rains or intensive grazing or a combination of both may have had something to do with this.

2119 (National Herbarium), Bathlaros, *leg.* Silk, 211 (National Herbarium), Wonderwerk, *leg.* Wilman 1351 (McGregor Museum), Vryburg, *leg.* Burtt-Davy 14672 (National Herbarium).

Bechuanaland :—Mochudi, *leg.* Harbor T.M. 14040 (Transvaal Museum).

This species is found in herbaria either under the name of *A. virgatum* Moss ms. or *A. elongatum* Willd. The latter, however, is a Cape species and although I could not decide which species from the Cape really represented the true *A. elongatum* Willd., it was evident that our material did not match any from that area ; the swollen peduncle-apex, rarely absent in our tumble weed and the fairly short stamens so densely, retrorsely, scabrid hairy in the upper half, seem to be typical of our species. *A. elongatum* of the Flora Capensis is either very variable or perhaps a mixture of several species.

The dried inflorescence is remarkable for its lightness. Except for a thin outer layer of sclerenchymatous tissue, the stems consist of pith only in which the thin, vascular strands are situated. At the base of the peduncle, at its junction with the rhizome, probably an absciss layer is formed (in an obconic shape) and it is here that the stalk breaks away.

NOTE BY DR. R. BROOM.

This species of Anthericum that is common in the northern part of the Orange Free State and the southern part of the Transvaal is one of the most highly specialised of the tumble plants. When the inflorescence is in full bloom all the branches are erect. But when the flowers are past and the seeds ripen the lateral branches spread outwards and curve downwards so that the whole inflorescence becomes an irregular ball of twigs. Then the base of the inflorescence separates from the rhizome and the whole ball is rolled over the veld by the wind. In the North-Western districts of the Orange Free State the farm fences catch the rolling balls and in many places these fences are completely lined with Anthericum inflorescences at certain seasons of the year.

A most interesting problem arises in connection with the development of this inflorescence. One can easily understand the advantage it may be to have the inflorescence blown about for miles over the veld, but it is difficult to understand why the ascending branches turn outwards and downwards to make the ball. They act as if controlled by some intelligence which knew that a satisfactory ball would not be made unless the little branches of the inflorescence were bent outwards and downwards. It may be there is some other explanation that can be advanced accounting for the ball formation by purely physical laws, but it certainly looks as if there was intelligence somewhere.